

- A MINIMUM OF 24 HOURS SHALL ELAPSE BETWEEN POURING OF BASE AND WALLS.
 THE VERTICAL DROP OF CONCRETE POUR SHALL NOT EXCEED 10 FEET WHEN POURING MANHOLE WALLS.
- MANHOLES REQUIRING DROPS GREATER THAN 10 FEET SHALL REQUIRE PLACEMENT OF CONSTRUCTION JOINTS.
 ALL HONEYCOMBS IN THE INTERIOR AND EXTERIOR SURFACES OF THE MANHOLE WALLS SHALL BE GROUTED SMOOTH USING A MIXTURE PROPORTIONED BY WEIGHT AS FOLLOWS:
- 1 POUND PORTLAND CEMENT 2 POUNDS SAND
- 5. ALL INTERIOR SURFACES OF ALL MANHOLES SHALL RECEIVE 2 COATS (8 DRY MILS TOTAL) OF COAL TAR EPOXY AS MANUFACTURED BY TNEMEC OR CARBOLINE, OR EQUAL AS APPROVED BY THE CITY ENGINEER. A MINIMUM OF 24 HOURS SHALL ELAPSE BETWEEN COATS.
- 6. PORTLAND CEMENT CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 701, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, OKLAHOMA STATE HIGHWAY COMMISSION, LATEST EDITION. CALCIUM CHLORIDE SHALL NOT BE USED AS AN ADDITIVE.

- 7. MH SHALL CONFORM TO CURRENT ASTM C478.
 8. MANHOLES LESS THAN 4'-6" IN HEIGHT SHALL HAVE A FULL 4' ID OR LARGER FROM TOP TO BOTTOM.
 9. LOW SLUMP CONCRETE SHALL BE PLACED IN THE FOOTINGS AND LOWER WALLS AND SHALL BE PLACED AND

- 10. AN INSPECTOR MUST BE PRESENT BEFORE AND DURING THE PLACING OF THE CONCRETE.

 11. ALTERNATE 3 INVERT MUST BE FORMED AT TIME OF BOTTOM POUR.

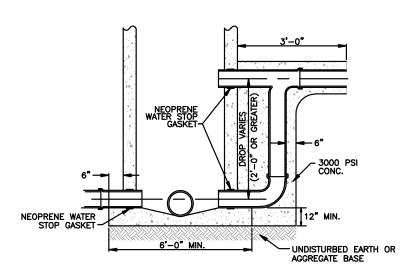
 12. IN PAVED STREETS, MANHOLES SHALL HAVE 4'X4'X8" CONCRETE COLLAR W/4—#6 REINFORCING BARS.
- 13. 8" TO 18" PIPE. 4' MANHOLE REQUIRED.
- 14. 21" TO 27" PIPE, 5' MANHOLE REQUIRED.
- 15. OVER 27" PIPE, MANHOLE I.D. SPECIFIED BY ENGINEER.
- 16. IF GRADE RINGS ARE USED A POUR IN PLACE CONCRETE COLLAR SHALL BE INSTALLED PER DETIAL 2 & 3.

THE FOLLOWING CRITERIA SHALL BE UTILIZED TO ESTABLISH TOP OF MANHOLE(TMH) ELEVATIONS AND COVER TYPES:

LOCATION	TOP OF MANHOLE (TMH)	MH COVER TYPE
GRASSED AREA	6" ABOVE FINISHED GRADE	VENTED TYPE WITH TWO (2) EPIC PICKHOLES AND 5/8" DIA. VENT HOLES 8 PLACES.
PAVED AREA	AT FINISHED GRADE WITH THE PAVEMENT	UNVENTED TYPE WITH TWO (2)
SUBDIVISIONS	GRASSED AREAS 6" ABOVE GRADE	EPIC PICKHOLES AND RESIDÈNTAL SUBDIVISIONS
DRAINAGE LOCATION	AT THE 100 YEAR FLOOD ELEVATION, IF HEIGHT FROM GROUND ELEVATION TO TMH DOES NOT EXCEED FOUR (4) FEET, OR	VENTED TYPE WITH TWO (2) EPIC PICKHOLES AND 5/8" DIA. VENT HOLES 8 PLACES.
SUCH AS SWALE, CHANNEL ETC.	AT FOUR (4) FEET ABOVE GROUND ELEVATION, IF THE HEIGHT FROM THE GROUND ELEVATION TO THE 100 YEAR FLOOD ELEVATION IS GREATER THAN FOUR (4) FEET	BOLTED TYPE*

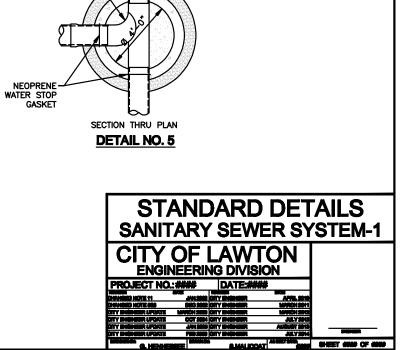
* WHEN USING BOLTED TYPE COVERS, MANHOLES SHALL BE VENTED AT LEAST EVERY 🗜 MILE BY CONSTRUCTING

A 2" DIA. VENT PIPE AS APPROVED BY THE ENGINEER.



DETAIL NO. 4 POURED-IN-PLACE

CONCRETE DROP MANHOLE (REQUIRED WHEN ELEVATION DIFFERENCE IS 2'-0" OR GREATER



NEOPRENE WATER STOP GASKET(A-LOK OR APPROVED

EQUAL FOR PRE-CAST MANHOLES)

CHANNEL-

SHAPED IN